

method is invoked by a single tap or double tap, or the device maker can implement a means for allowing the user to specify their preference.

[0272] The present invention also covers the methods by which the device pans or scrolls content on the display in response to the user sliding parts of their hands (e.g. a finger or palm) on one or more of the touch sensitive areas on the sides or back of the device. For example, when the user slides their finger up or down item 1005 on the device illustrated in FIG. 16-A, the content displayed on a Web page would pan as described earlier. The device simply uses the sensor to track where the user's finger is on the sensor, and how it is moving, and translates that into movement of the Web page—much as many devices translate sliding a virtual scroll bar on a Web browser window into movement of the content. Similarly, in a device with a touch pad on the back, such as that illustrated by FIG. 18-A, the device would use a method that simply responds to movement of the user's finger around the touch pad 1810 by correspondingly panning the Web content around the display, as described earlier.

[0273] The foregoing description is not intended to be a complete list of the generalizations of the embodiments discussed in this description of the present invention that could be claimed as novel. Device designers and engineers skilled in the art of designing and developing hand-held electronic communication and computational devices will be able to develop devices incorporating the attendant features and principles described above.

[0274] FIG. 24 illustrates a typical, potentially embedded, computer system that, when appropriately configured or designed, can serve as a computer system in which the invention may be embodied. The computer system 2400 includes any number of processors 2402 (also referred to as central processing units, or CPUs) that are coupled to storage devices including primary storage 2406 (typically a random access memory, or RAM), primary storage 2404 (typically a read only memory, or ROM). CPU 2402 may be of various types including microcontrollers and microprocessors such as programmable devices (e.g., CPLDs and FPGAs) and unprogrammable devices such as gate array ASICs or general purpose microprocessors. As is well known in the art, primary storage 2404 acts to transfer data and instructions uni-directionally to the CPU and primary storage 2406 is used typically to transfer data and instructions in a bi-directional manner. Both of these primary storage devices may include any suitable computer-readable media such as those described above. A mass storage device 2408 may also be coupled bi-directionally to CPU 2402 and provides additional data storage capacity and may include any of the computer-readable media described above. Mass storage device 2408 may be used to store programs, data and the like and is typically a secondary storage medium such as a hard disk. It will be appreciated that the information retained within the mass storage device 2408, may, in appropriate cases, be incorporated in standard fashion as part of primary storage 2406 as virtual memory. A specific mass storage device such as a CD-ROM 2414 may also pass data uni-directionally to the CPU.

[0275] CPU 2402 may also be coupled to an interface 2410 that connects to one or more input/output devices such as such as video monitors, track balls, mice, keyboards,

microphones, touch-sensitive displays, transducer card readers, magnetic or paper tape readers, tablets, styluses, voice or handwriting recognizers, or other well-known input devices such as, of course, other computers. Finally, CPU 2402 optionally may be coupled to an external device such as a database or a computer or telecommunications network using an external connection as shown generally at 2412. With such a connection, it is contemplated that the CPU might receive information from the network, or might output information to the network in the course of performing the method steps described herein.

[0276] It should be noted that no known companies have arrived at the forgoing innovations of the present invention, at least in part because they likely have not performed the detailed experimentation required to make the motivating observations.

[0277] Having fully described at least one embodiment of the present invention, other equivalent or alternative methods according to the present invention will be apparent to those skilled in the art. The invention has been described above by way of illustration, and the specific embodiments disclosed are not intended to limit the invention to the particular forms disclosed. The invention is thus to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the following claims.

I claim:

1. A portable electronic display device for displaying information, the display device comprising:

- a. an enclosure effectively sized to be at most 5.75 inches in a first dimension and at most 4.5 inches in a second dimension; and
- b. a display comprised in the enclosure such that an active surface of the display is visible, the display having an effective pixel count of at least 520 effective pixels in the first dimension and an effective pixel count of at least 320 effective pixels in the second dimension, the display further having an effective pixel density of at most 175 effective pixels-per-inch (ppi) in the first and second dimensions.

2. The portable electronic display device of claim 1, wherein the effective pixel count in the first dimension is inclusively between 520 and 800 effective pixels, and the effective pixel count in the second dimension is inclusively between 360 and 600 effective pixels, and the effective pixel density is inclusively between 122 and 166 effective ppi, and the enclosure is effectively sized to be at most 5.2 inches in the first dimension and at most 3.8 inches in the second dimension.

3. The portable electronic display device of claim 1, further comprising:

- at least one control operable to horizontally move content displayed by the active surface of said display; and
- at least one control operable to vertically move content displayed by the active surface of said display, said at least one vertical control operating substantially independent of said at least one horizontal control.

4. The portable electronic display device of claim 3, wherein at least one of said at least one vertical control is disposed at a right or left edge of said enclosure, and at least one of said at least one horizontal control is disposed at a bottom edge of said enclosure.